TECH CENTER 1600 (2000)

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/423,943

DATE: 09/26/2000 TIME: 16:40:05

Input Set : A:\Cbm-70wo.app

Output Set: N:\CRF3\09262000\1423943.raw

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3 <110> APPLICANT: Sampath, Kuber T.
                Cohen, Charles M.
       6 <120> TITLE OF INVENTION: Methods For Tissue Morphogenesis and Methods for
                Evaluating Morphogenic Activity
     9 <130> FILE REFERENCE: Seq. Listing For CBM-70 WO 11 <140> CURRENT APPLICATION NUMBER: 09/423943
C--> 12 <141> CURRENT FILING DATE: 2000-03-18
      14 <160> NUMBER OF SEQ ID NOS: 9
      16 <170> SOFTWARE: PatentIn Ver. 2.0
      18 <210> SEQ ID NO: 1
      19 <211> LENGTH: 1822
      20 <212> TYPE: DNA
      21 <213> ORGANISM: Homo sapiens
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      25 <222> LOCATION: (49)..(1341)
      26 <223> OTHER INFORMATION: "Morphogenic Protein OP-1"
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42 Glu Val His Ser Ser Phe Ile His Arg Arg Leu Arg Ser Gln Glu Arg
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RAW SEQUENCE LISTING PATENT APPLICATION: US/09/423,943 DATE: 09/26/2000 TIME: 16:40:05

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78	Tyr	Ile	Arg	Glu	Arg	Phe	Asp	Asn	Glu	Thr	Phe	Arg	Ile	Ser	Val	Tyr	
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85	gac	agc	cgt	acc	ctc	tgg	gcc	tcg	gag	gag	ggc	tgg	ctg	gtg	ttt	gac	729
													Leu				
87	_		_	215		-			220		_	_		225		_	
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	Phe					ttc Phe					gtc Val					atc Ile	921
102 103	Phe	Met	. Val	Ala	Phe 280	ttc Phe	Lys	Ala	Thr	G1u 285	gtc Val	His	Phe	Arg	Ser 290	atc Ile	921 969
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102 103 105	Phe cgg Arg	Met tcc	Val	Ala ggg	Phe 280 agc Ser	ttc Phe aaa	Lys cag	Ala	Thr	G1u 285 cag G1n	gtc Val	His	Phe tcc	aag	Sei 290 acg Thi	atc Ile ccc	
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102 103 105 106 107 109 110	Phe cgg Arg aag	tec Ser aac	val e acg Thr c cag n Gln 310	ggg Gly 295 gaa Glu	Phe 280 age Ser gee Ala	tto Phe aaa Lys ctg	cag Gln cgg	Ala cgc Arg atg Met	Thr ago Ser 300 gco	Glu 285 cag Gln aac	gtc Val aac Asn gtg Val	His cgc Arg gca Ala	tcc Ser gag Glu 320	aag Lys 305 aac	Ser 290 aco Thr ago Ser	atc fle fccc pccc Pro	969
102 103 105 106 107 109 110 111	Phe cgg Arg aag Lys	tcc Ser aac Asr	val c acg Thr c cag n Gln 310 c cag	Ala 1 999 295 295 1 gaa 1 Glu	Phe 280 agc Ser gcc Ala	tto Phe aaa Lys ctg Leu	cag Gln cgg Arg	Ala cgc Arg atg Met 315	Thr ago Ser 300 gco Ala	Glu 285 cag Gln aac Asn	gtc Val aac Asn gtg Val	His cgc Arg gca Ala	tcc Ser gag Glu 320	aag Lys 305 aac Asn	Ser 290 acg Thr ago Ser ago	atc Tle Ccc Pro agc	969 1017
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102 103 105 106 107 109 110 111 113 114	cgg Arg aag Lys agc	tcc Ser aac Asr gac Asp 325	acgo Thr cago Gln 310 cago Gln	Ala ggg Gly 295 gaa Glu agg	Phe 280 agc Ser gcc Ala cag	tto Phe aaa Lys ctg Leu gcc	cag Gln cgg Arg tgt Cys	atg Met 315 aag Lys	Thr ago Ser 300 gco Ala aag	Glu 285 cag Gln aac Asn Cac	gtc Val aac Asn gtg Val gag Glu	GGC Arg gCa Ala ctg Leu 335	tcc Ser gag Glu 320 tat	aag Lys 305 aac Asn gtc	Sei 290 acc Thi ago Sei Sei Sei Sei	e atc file g ccc pro e age ser e ttc	969 1017
102 103 105 106 107 109 110 111 113 114 115 117	cgg Arg aag Lys agc	tcc Ser aac Asr gac Asp 325 gac	c val c acg c Thr c cag n Gln 310 c cag o Gln i	Ala gggg Gly 295 gaa Glu agg	Phe 280 agc Ser Ala cag	ttc Phe aaa Lys ctg Leu gcc Ala	cag Gln cgg Arg tgt Cys 330	Ala cgc Arg atg Met 315 aag Lys	Thr ago Ser 300 gcc Ala aag Lys	Glu 285 cag Gln aac Asn cac His	gtc Val aac Asn gtg Val gag Glu	His cgc Arg gca Ala ctg Leu 335	tcc Ser gag Glu 320 tat Tyr	aag Lys 305 aac Asn gtc Val	Ser 29() acg Thri ago Ser 3 Se	atc atc Ile of ccc Pro agc Ser ttc Phe	969 1017 1065
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102 103 105 106 107 109 110 111 113 114 115 117 118 119	aag Lys ago Ser cga Arg 340	tec Ser aac Asr gac Asp 325 gac Asp	c acg Thr c cag Gln 310 c cag Gln c ctg Leu	Ala 1 9999 295 1 gaa 6 Glu 1 agg 1 Arg 1 Gly 1 tgt	Phe 280 agc Ser Gla Ala cag Gln Trp gag	ttc Phe aaa Lys ctg Leu gcc Ala cag Gln 345 ggg	cag Gln cgg Arg tgt Cys 330 gac Asp	Alacego Argo Atgo Met 315 aag Lys tgg	Thrace ago Ser 300 gcc Ala aag Lys atc Ile	Glu 285 cag Gln aac Asn cac His atc	gtc Val aac Asn gtg Val gag Glu gcg Ala 350	His cgc Arg gca Ala ctg Leu 335 cct Pro	e tcc Ser gag Glu 320 tat Tyr	aag Lys 305 aac Asn gtc Val	Sei 290 acci acci acci sei ago Sei tao	atc atc Ile of ccc Pro agc Ser ttc Phe	969 1017 1065 1113
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102 103 105 106 107 110 111 113 114 115 117 118 119 121 122 123 125	e Phe	Met tec Ser aac Asr gac Asr gac Asr gac Tyr	c Val c acg Thr c cag n Gln 310 c cag c ctg c ctg t tac Tyr	Ala ggg Gly 295 gaa Glu agg Arg Gly tgt	Phe 280 agc Ser Ser Ala cag Gln tgg Glu 360 cac	tto Phe aaaa Lys ctg Leu gcc Ala cag Gln 345 ggg Gly	cag Gln cgg Arg tgt Cys 330 gac Asp	Alacego Arganet Argane	Three ago Ser 300 gcc Ala agg Lys atc Ile Ala cag	Glu 285 cags cags Gln aacc Asn cac His atc Ile ttc Phe 365 acg	gtg Val aac Asn gtg Val gag Glu gcg Ala 350 cct Pro	His cgc Arg gca Ala ctg Leu 335 cct Pro ctg	gag Glu 320 tat Tyr gaa Glu aac Asn	Arg aag Lys 305 aac Asn yal ggc Gly tcc ser	Sei 290 acc Thi again Sei Sei Sei Tyr Tyr 370 atc	atc atc Ile ccc Pro agc Ser ttc Phe agc Ala 355 Ala 355 Ala Met	969 1017 1065 1113 1161
102 103 105 106 107 110 111 113 114 115 117 118 119 121 122 123 125	e Phe cgg Arg Lys ago Ser cga Arg 340 gcc Ala	Met tec Ser aac Asr gac Asr gac Asr gac Tyr	c Val c acg Thr c cag n Gln 310 c cag c ctg c ctg t tac Tyr	Ala ggg Gly 295 gaa Glu agg Arg Gly tgt Cys	Phe 280 agc Ser Ser Ala cag Gln tgg Glu 360 cac His	tto Phe aaaa Lys ctg Leu gcc Ala cag Gln 345 ggg Gly	cag Gln cgg Arg tgt Cys 330 gac Asp	Alacego Arganet Argane	Three ago Ser 300 gcc Ala agg Lys atc Ile Ala cag	Glu 285 cag Gln aac Asn cac His atc Ile ttc Phe 365 acg Thr	gtg Val aac Asn gtg Val gag Glu gcg Ala 350 cct Pro	His cgc Arg gca Ala ctg Leu 335 cct Pro ctg	gag Glu 320 tat Tyr gaa Glu aac Asn	Arg aag Lys 305 aac Asn yal ggc Gly tcc ser	Sei 290 acci acci acci acci acci acci acci acc	atc Ile CCC Pro agc Ser ttc Phe CCC Ala 355 atg atg aac	969 1017 1065 1113 1161
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     218 Arg Ser Ile Arg Ser Thr Gly Ser Lys Gln Arg Ser Gln Asn Arg Ser
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                                 295
     221 Lys Thr Pro Lys Asn Gln Glu Ala Leu Arg Met Ala Asn Val Ala Glu
     222 305
                             310
     224 Asn Ser Ser Ser Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu Tyr
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     227 Val Ser Phe Arg Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Glu
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     236 Phe Ile Asn Pro Glu Thr Val Pro Lys Pro Cys Cys Ala Pro Thr Gln
     237 385
                             390
                                                 395
     239 Leu Asn Ala Ile Ser Val Leu Tyr Phe Asp Asp Ser Ser Asn Val Ile
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     240
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     242 Leu Lys Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly Cys His 420 425 430
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     254 <220> FEATURE:
     255 <221> NAME/KEY: VARIANT
     256 <222> LOCATION: (1)..(102)
     257 <223> OTHER INFORMATION: wherein each Xaa is independently selected from a
     258
               group of one or more specified amino acids as
     259
               defined in the specification
     261 <400> SEQUENCE: 3
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  -> 265 Asp Trp Xaa Ile Ala Pro Xaa Gly Tyr Xaa Ala Tyr Tyr Cys Glu Gly
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                     20
                                          25
  -> 268 Glu Cys Xaa Phe Pro Leu Xaa Ser Xaa Met Asn Ala Thr Asn His Ala
    269
                 35
                                      40
W--> 271 Ile Xaa Gln Xaa Leu Val His Xaa Xaa Xaa Pro Xaa Xaa Val Pro Lys
    272
             50
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W--> 274 Xaa Cys Cys Ala Pro Thr Xaa Leu Xaa Ala Xaa Ser Val Leu Tyr Xaa
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W--> 277 Asp Xaa Ser Xaa Asn Val Ile Leu Xaa Lys Xaa Arg Asn Met Val Val
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PATENT APPLICATION: US/09/423,943
                                                      TIME: 16:40:05
                  Input Set : A:\Cbm-70wo.app
                  Output Set: N:\CRF3\09262000\I423943.raw
W--> 280 Xaa Ala Cys Gly Cys His
    281
                  100
    284 <210> SEQ ID NO: 4
    285 <211> LENGTH: 97
    286 <212> TYPE: PRT
    287 <213> ORGANISM: Artificial Sequence
    289 <220> FEATURE:
    290 <223> OTHER INFORMATION: Description of Artificial Sequence: Generic
    291
             Sequence 7
    293 <220> FEATURE:
    294 <221> NAME/KEY: VARIANT
    295 <222> LOCATION: (1) (97)
    296 <223> OTHER INFORMATION: wherein each Xaa is independently selected from a
             group of one or more specified amino acids defined
    298
             in the specification
    300 <400> SEQUENCE: 4
W--> 301 Leu Xaa Xaa Xaa Phe Xaa Xaa Gly Trp Xaa Xaa Trp Xaa Xaa Xaa
    302 1
                       5
                                         10
W--> 304 Pro Xaa Xaa Xaa Xaa Ala Xaa Tyr Cys Xaa Gly Xaa Cys Xaa Xaa Pro
    305
               20
                                     25
308
               35
                                 40
311
         50
                              55
                                                60
W--> 313 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
                          7.0
                                            75
    314 65
W--> 316 Val Xaa Leu Xaa Xaa Xaa Xaa Met Xaa Val Xaa Xaa Cys Xaa Cys
    317
                                         90
W--> 319 Xaa
    323 <210> SEQ ID NO: 5
    324 <211> LENGTH: 102
    325 <212> TYPE: PRT
    326 <213> ORGANISM: Artificial Sequence
    328 <220> FEATURE:
    329 <223> OTHER INFORMATION: Description of Artificial Sequence: Generic
    330
             Sequence 8
    332 <220> FEATURE:
    333 <221> NAME/KEY: VARIANT
    334 <222> LOCATION: ()..)
    335 <223> OTHER INFORMATION: wherein each Xaa is independently selected from a
    336
             group of one or more specified amino acids defined
    337
             in the specification
    339 <400> SEQUENCE: 5
W--> 340 Cys Xaa Xaa Xaa Xaa Leu Xaa Xaa Phe Xaa Xaa Xaa Gly Trp Xaa
    341 1 5
                                        10
W--> 343 Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Ala Xaa Tyr Cys Xaa Gly
    344 20
                                   25
                                                       30
W--> 346 Xaa Cys Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asn His Ala
               35
                                 40
```

DATE: 09/26/2000

RAW SEQUENCE LISTING

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

DATE: 09/26/2000 TIME: 16:40:06

PATENT APPLICATION: US/09/423,943

Input Set : A:\Cbm-70wo.app

Output Set: N:\CRF3\09262000\I423943.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:355 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:372 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6

L:382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6

L:421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:477 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9